International comparisons of adult literacy

In recent years, literacy has been viewed as one of the fundamental tools necessary for successful economic performance in industrialized societies. Literacy is no longer defined merely as a basic threshold of reading ability, but rather as the ability to understand and use printed information in daily activities, at home, at work, and in the community. As society becomes more complex and low skill jobs continue to disappear, concern about adults' ability to use written information to function in society continues to increase. Within countries, literacy levels are affected by both the quality and quantity of the population's formal education, as well as participation in informal learning activities.

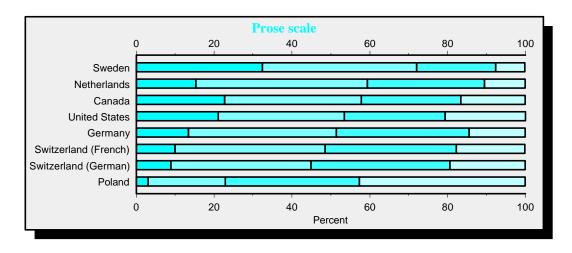
- Compared to most of the other countries assessed in 1994, the United States had a greater concentration of adults who scored at the lowest literacy levels across the prose, document, and quantitative literacy domains. However, the United States had one of the higher concentrations of adults who scored at or above level 4 on the prose scale.
- In 1994, the proportion of adults who scored at each literacy level was similar across the three scales in Canada and the United States. In Germany, the Netherlands, and Switzerland, on the other hand, the proportion of adults who scored at the highest literacy level (level 4/5) was greater on the quantitative scale than on the prose scale.
- The distribution of literacy proficiency across different age groups was fairly uniform in the United States, with the exception of the oldest age group, while in several other countries, young
- adults had higher literacy levels than older adults. For example, the percentage of U.S. adults aged 26–35 who scored at or above level 4 on the prose scale was similar to the percentage of U.S. adults aged 46–55 scoring at that level (22 and 24 percent, respectively). Within Germany, the younger group was almost twice as likely to score at or above level 4 on the prose scale as the older group (20 and 11 percent, respectively). Differences in literacy proficiency by age in Switzerland, Sweden, and the Netherlands were similar to those in Germany (see supplemental table 21-1).
- Within particular occupations, the proportion of workers scoring at each literacy level varied across the assessed countries. For example, the proportion of skilled craft workers scoring at level 3 or above was lower in the United States than in other countries, particularly Germany (see supplemental table 21-2).

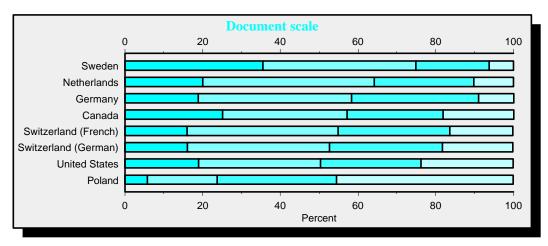
Percentage distribution of the population in selected countries scoring at each of the five literacy levels, by literacy scale: 1994

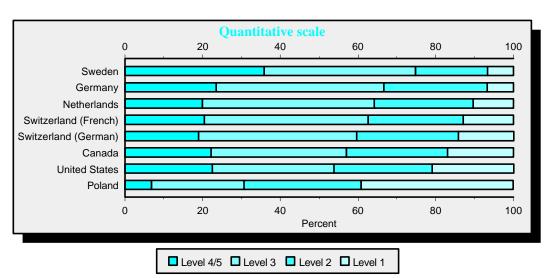
		Pi	rose scale)		Docum	ent scale	!	Quantitative scale				
Country	Level I	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	
Canada	16.6	25.6	35.1	22.7	18.2	24.7	32.1	25.1	16.9	26.1	34.8	22.2	
Germany	14.4	34.2	38.0	13.4	9.0	32.7	39.5	18.9	6.7	26.6	43.2	23.5	
Netherlands	10.5	30.1	44.1	15.3	10.1	25.7	44.2	20.0	10.3	25.5	44.3	19.9	
Poland	42.6	34.5	19.8	3.1	45.4	30.7	18.0	5.8	39.1	30.1	23.9	6.8	
Sweden	7.5	20.3	39.7	32.4	6.2	18.9	39.4	35.5	6.6	18.6	39.0	35.8	
Switzerland (French)	17.6	33.7	38.6	10.0	16.2	28.8	38.9	16.0	12.9	24.5	42.2	20.4	
Switzerland (German)	19.3	35.7	36.1	8.9	18.1	29.1	36.6	16.1	14.2	26.2	40.7	19.0	
United States	20.7	25.9	32.4	21.1	23.7	25.9	31.4	19.0	21.0	25.3	31.3	22.5	

NOTE: The individuals who performed at level 1 demonstrated the lowest literacy proficiency, while those at level 5 displayed the highest literacy proficiency. See the supplemental note to this indicator for a description of the literacy scales and levels.

Percentage distribution of the population in selected countries scoring at each of the five literacy levels, by literacy scale: 1994







 $\ensuremath{\mathsf{NOTE}}\xspace$ See the supplemental note to this indicator for a description of the literacy scales and levels.

Note to Indicator 21: Definitions of literacy scales and levels

This analysis reports the results of a wide-ranging test of literacy skills given to a large sample of adults (ranging from 1,500 to 1,800 per country) in Europe and North America in fall 1994. The International Adult Literacy Survey (IALS) was a collaborative effort among seven governments and three intergovernmental organizations. Each country was required to draw a probability sample that could be representative of the civilian, noninstitutionalized population aged 16-65. In six countries, the survey was conducted in the national language; in Canada, respondents were given a choice of taking the survey in either English or French; in Switzerland, respondents in Frenchspeaking and German-speaking cantons responded to survey questions in their respective languages.

As literacy cannot be narrowed down to a single skill suited for dealing with all types of text, nor defined as an infinite set of skills, the IALS defined literacy in terms of three scales, each encompassing a common set of skills relevant for diverse tasks:

Prose literacy: The knowledge and skills required to understand and use information from texts, including editorials, news stories, poems, and fiction;

Document literacy: The knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics; and

Quantitative literacy: The knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a checkbook, figuring a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

In each of these three scales, rather than expressing a threshold for achieving literacy, a scale from 0–500 was constructed, upon which tasks of varying difficulty were placed. These scales were developed through the item response theory (IRT) scaling procedures. First, the difficulty of tasks was ranked on a scale according to how well respondents actually performed. Then, each scale was divided into five levels, reflecting the empirically determined progression of information-processing skills and strategies. Next, individuals were assigned scores between 0 and 500 according to how well they performed on a variety of tasks at different levels. Finally, the percentage of readers falling into each skill level was calculated.

A person's ability in each literacy scale can be expressed by a score, defined as the point at which he or she has an 80 percent chance of successfully performing a given task. If a person scores at level 2, it means that this individual has an 80 percent chance of successfully performing level 2 tasks and a greater than 80 percent chance of performing level 1 tasks. It does not mean, however, that individuals with low proficiency cannot succeed at tasks that are rated at higher skill levels—only that the probability of their success is relatively low. Below is a description of the three literacy scales and the tasks required at each proficiency level:

Prose literacy includes text from newspapers, magazines, and brochures accompanied by one or more questions or directives asking the reader to perform specific tasks. These tasks represent three major aspects of information processing: locating, integrating, and generating. Locating tasks require the reader to find information in the text based on conditions or features specified in the question or directive. Integrating tasks ask the reader to pull together two or more pieces of information in the text. Generating tasks ask the reader to produce a written response by processing information from the text, making text-based references, and drawing on background knowledge.

Prose Level 1 (Difficulty values 0–225). Most of the tasks at this level require the reader to locate and match a single piece of information in the text that is identical to or synonymous with the information given in the directive. If a plausible incorrect answer is present in the text, it tends not to be near the correct information.

Prose Level 2 (Difficulty values 226–275). Tasks at this level tend to require the reader to locate one or more pieces of information in the text; however, several distracters may be present and the reader may need to make low-level inferences. Tasks at this level also begin to ask readers to integrate two or more pieces of information, or to compare and contrast information.

Prose Level 3 (Difficulty values 276–325). Tasks at this level tend to direct readers to search the text to match information, requiring the reader to make low-level inferences or to locate text that meets specified conditions. Sometimes the reader is required to identify several pieces of information that are located in different sentences or paragraphs rather than search for information located in a single sentence. Readers may also be asked to integrate

or to compare and contrast information across paragraphs or sections of text.

Prose Level 4 (Difficulty values 326–375). These tasks require readers to perform multiple-feature matching or to provide several responses where the requested information must be identified through text-based inferences. Tasks at this level may also require the reader to integrate or contrast pieces of information that are sometimes presented in relatively lengthy texts. Typically, these texts contain more distracting information, and the information that is requested is more abstract.

Prose Level 5 (Difficulty values 376–500). Some tasks at this level require the reader to search for information in dense text that contains a number of plausible distracters. Some tasks require readers to make high-level inferences or use specialized knowledge.

Document literacy involves using materials such as tables, schedules, charts, graphs, maps, and forms. Questions or directives associated with the various document tasks are categorized into four basic types: locating, cycling, integrating, and generating. Locating, integrating, and generating refer to the same skills as those in prose literacy. Cycling tasks require the reader to locate and match one or more features of information, but differ from locating tasks in that they require the reader to engage in a series of feature matches to satisfy conditions given in the question.

Document Level 1 (Difficulty values 0–225). Most of the tasks at this level require the reader to locate a piece of information based on a literal match. Distracting information, if present, is typically located away from the correct answer. Some tasks may direct the reader to enter personal information onto a form.

Document Level 2 (Difficulty values 226–275). Document tasks at this level are more varied. While some still require the reader to match a single feature, more distracting information may be present, and the match may require a low-level inference. Some tasks at this level may require the reader to enter information onto a form or to cycle through information in a document.

Document Level 3 (Difficulty values 276–325). Tasks at this level appear to be the most varied. Some require the reader to make identical or synonymous matches; however, these matches usually require the reader to take conditional information into account or to match multiple features of information.

Document Level 4 (Difficulty values 326–375). Tasks at this level, like those in the previous levels, ask the reader to match multiple features of information, to cycle through documents, and to integrate information; frequently, these tasks require the reader to make higher order inferences to arrive at the correct answer. Sometimes the reader must take conditional information into account.

Document Level 5 (Difficulty values 376–500). Tasks at this level require the reader to search through complex displays of information that contain multiple distracters, make high-level inferences, process conditional information, or use specialized knowledge.

Quantitative literacy involves using numbers and arithmetic operations to complete a task. These tasks require the reader to locate and extract numbers from different types of documents that contain similar but irrelevant information, infer numbers from printed directions, or calculate numbers using multiple operations.

Quantitative Level 1 (Difficulty values 0–225). Although no quantitative tasks used in the IALS fall below the score of 225, experience suggests that such tasks would require the reader to perform a single, relatively simple operation (usually addition) for which either the numbers are already entered into the given document and the operation is stipulated, or the numbers are provided and the operation does not require the reader to borrow.

Quantitative Level 2 (Difficulty values 226–275). Tasks at this level typically require readers to perform a single arithmetic operation (frequently addition or subtraction) using numbers that are easily located in the text or document. The operation to be performed may be easily inferred from the wording of the question or the format of the material (for example, a bank deposit form or an order form).

Quantitative Level 3 (Difficulty values 276–325). Tasks at this level typically require the reader to perform a single operation. However, the operations are more varied—some multiplication and division tasks are found at this level. Sometimes two or more numbers are needed to solve the problem, and the numbers are frequently embedded in more complex displays. While semantic relation terms such as "how many" or "calculate the difference" are often used, some of the tasks require the reader to make higher order inferences to determine the appropriate operation.

Quantitative Level 4 (Difficulty values 326–375). With one exception, the tasks at this level require the

reader to perform a single arithmetic operation in which the quantities or the operations are not easily determined. That is, for most of the tasks at this level, the question or directive does not provide a semantic relation term such as "how many" or "calculate the difference" to help the reader.

Quantitative Level 5 (Difficulty values 376–500). Tasks at this level require readers to perform multiple op-

erations sequentially; the reader must pull out the features of the problem from the material provided or rely on background knowledge to determine the quantities or operations needed.

Percentage distribution of the population in selected countries scoring at each of the five literacy levels, by literacy scale: 1994

		P	rose scale)		Docum	ent scale	;	Quantitative scale				
Country	Level I	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	
Canada	16.6	25.6	35.1	22.7	18.2	24.7	32.1	25.1	16.9	26.1	34.8	22.2	
Germany	14.4	34.2	38.0	13.4	9.0	32.7	39.5	18.9	6.7	26.6	43.2	23.5	
Netherlands	10.5	30.1	44.1	15.3	10.1	25.7	44.2	20.0	10.3	25.5	44.3	19.9	
Poland	42.6	34.5	19.8	3.1	45.4	30.7	18.0	5.8	39.1	30.1	23.9	6.8	
Sweden	7.5	20.3	39.7	32.4	6.2	18.9	39.4	35.5	6.6	18.6	39.0	35.8	
Switzerland (French)	17.6	33.7	38.6	10.0	16.2	28.8	38.9	16.0	12.9	24.5	42.2	20.4	
Switzerland (German	19.3	35.7	36.1	8.9	18.1	29.1	36.6	16.1	14.2	26.2	40.7	19.0	
United States	20.7	25.9	32.4	21.1	23.7	25.9	31.4	19.0	21.0	25.3	31.3	22.5	

NOTE: The individuals who performed at level 1 demonstrated the lowest literacy proficiency, while those at level 5 displayed the highest literacy proficiency. See the supplemental note to this indicator for a description of the literacy scales and levels.

Table 21-1 Percentage distribution of the population in selected age groups scoring at each

of the five literacy levels, by literacy scale and country: 1994

Country		Р	rose sca	ale			Doc	ument	scale			Quar	ntitative	scale	
and age	TotalL	evel 1 L	evel 2 L	evel 3 Le	vel 4/5	TotalL	evel 1 L	evel 2 L	evel 3 Le	evel 4/5	Total L	evel 1 L	evel 2 L	evel 3 Le	evel 4/5
Canada															
16–25	100.0	10.7	25.7	43.7	19.9	100.0	10.4	22.3	36.4	31.0	100.0	10.1	28.6	44.6	16.7
26–35	100.0	12.3	28.5	33.1	26.1	100.0	13.5	25.3	33.8	27.5	100.0	12.0	25.5	35.1	27.5
36–45	100.0	13.3	18.6	36.8	31.3	100.0	13.8	22.0	36.8	27.4	100.0	11.9	22.4	35.6	30.1
46–55	100.0	20.6	30.2	30.9	18.4	100.0	23.0	31.0	23.6	22.4	100.0	23.9	32.2	24.8	19.0
56–65	100.0	37.6	26.4	28.0	8.1	100.0	43.8	23.7	23.8	8.7	100.0	39.7	21.5	31.4	7.4
Germany	1														
16–25	100.0	8.9	29.5	46.2	15.4	100.0	5.2	29.0	43.0	22.8	100.0	4.4	26.4	47.1	22.0
26-35	100.0	12.4	30.6	37.3	19.7	100.0	5.9	29.2	40.0	24.9	100.0	4.9	23.3	42.9	28.9
36-45	100.0	14.5	31.5	39.4	14.5	100.0	9.5	30.6	38.5	21.4	100.0	6.5	22.9	44.3	26.3
46-55	100.0	14.2	37.4	37.5	10.9	100.0	7.4	35.0	43.1	14.5	100.0	7.0	27.1	41.2	24.7
56–65	100.0	22.1	43.2	30.1	4.7	100.0	17.7	40.9	32.6	8.8	100.0	10.8	34.9	40.8	13.5
Netherlar	nds														
16–25	100.0	8.3	22.1	50.1	19.5	100.0	6.1	16.8	51.1	26.0	100.0	7.7	21.0	50.1	21.1
26-35	100.0	6.4	20.5	50.6	22.5	100.0	5.9	19.2	45.7	29.3	100.0	6.7	19.9	45.3	28.2
36–45	100.0	8.6	30.4	46.6	14.3	100.0	9.2	24.2	49.5	17.1	100.0	10.1	25.0	46.0	18.9
46–55	100.0	13.9	38.8	37.5	9.8	100.0	12.6	35.7	38.0	13.7	100.0	12.8	31.0	39.8	16.4
56-65	100.0	20.1	47.5	27.7	4.7	100.0	22.6	40.5	30.1	6.8	100.0	17.6	36.2	36.9	9.3
Poland															
16-25	100.0	26.7	38.3	29.1	5.9	100.0	32.2	33.1	26.2	8.5	100.0	29.6	32.6	31.0	6.7
26-35	100.0	35.0	39.0	22.2	3.7	100.0	39.2	33.8	19.7	7.4	100.0	32.7	33.0	25.6	8.7
36–45	100.0	42.0	38.0	17.2	2.8	100.0	42.6	33.6	18.1	5.7	100.0	36.1	32.1	23.4	8.4
46-55	100.0	53.5	29.6	16.0	1.0	100.0	55.6	27.0	13.3	4.1	100.0	47.7	26.9	19.5	5.9
56-65	100.0	69.5	20.5	9.8	0.2	100.0	70.1	20.9	7.6	1.4	100.0	60.8	21.4	15.6	2.2
Sweden															
16–25	100.0	3.8	16.7	39.8	39.7	100.0	3.1	16.6	39.6	40.7	100.0	4.9	17.6	39.0	38.4
26–35	100.0	4.9	14.2	39.2	41.7	100.0	3.9	10.4	38.1	47.6	100.0	4.0	14.3	36.3	45.4
36–45	100.0	7.1	19.7	41.5	31.7	100.0	6.6	18.2	39.8	35.4	100.0	7.0	16.5	41.2	35.2
46–55	100.0	8.2	21.8	41.8	28.2	100.0	6.8	19.7	43.1	30.3	100.0	5.8	19.7	40.5	34.0
56-65	100.0	15.9	32.7	35.3	16.2	100.0	12.2	33.3	36.0	18.5	100.0	12.9	27.0	37.5	22.6
Switzerlar	nd (Fren	ch)													
16–25	100.0	10.5	31.0	43.1	15.4	100.0	8.7	24.9	40.4	26.0	100.0	6.2	21.4	47.0	25.4
26–35	100.0	11.1	29.4	46.5	13.0	100.0	11.5	22.4	44.5	21.6	100.0	8.8	20.6	47.8	22.9
36–45	100.0	22.1	33.5	35.5	8.9	100.0	19.2	32.9	34.2	13.7	100.0	16.6	25.2	36.4	21.8
46–55	100.0	20.9	35.1	36.1	7.9	100.0	18.0	29.8	42.4	9.7	100.0	16.1	22.7	43.2	18.0
56–65	100.0	27.7	43.3	26.8	2.3	100.0	27.5	38.1	29.8	4.6	100.0	19.2	36.0	33.8	11.0
Switzerlar	nd (Geri	man)													
16–25	100.0	7.3	35.5	43.4	13.8	100.0	7.1	25.7	41.0	26.3	100.0	6.9	21.9	48.2	22.9
26-35	100.0	16.6	26.8	44.6	12.0	100.0	17.4	20.7	38.8	23.1	100.0	13.1	20.7	40.8	25.4
36–45	100.0	24.2	34.3	32.4	9.1	100.0	21.5	30.3	36.3	12.0	100.0	19.0	26.3	37.9	16.9
46–55	100.0	19.4	41.7	34.7	4.2	100.0	21.0	33.8	35.0	10.2	100.0	14.8	28.5	41.2	15.5
56–65	100.0	30.4	46.0	19.5	4.1	100.0	22.8	39.9	30.6	6.7	100.0	15.8	37.6	35.7	10.8
United Sta	ates														
16-25	100.0	_		_	_	100.0	_	_	_	_	100.0	_	_	_	_
26-35	100.0	19.6	23.2	35.7	21.6	100.0	21.6	22.9	34.5	21.0	100.0	20.1	20.9	35.6	23.5
36-45	100.0	19.5	21.4	30.0	29.2	100.0	23.5	19.7	31.4	25.4	100.0	18.2	23.2	26.9	31.6
46-55	100.0	18.3	25.7	32.2	23.8	100.0	21.4	28.2	33.2	17.3	100.0	19.0	25.2	32.3	23.6
56-65	100.0	23.6	30.7	31.1	14.7	100.0	29.3	32.9	26.0	11.7	100.0	22.4	29.6	32.0	16.0

[—] Data for this age group are inaccurate due to sampling and non-response problems.

NOTE: Details may not add to totals due to rounding.

Table 21-2 Percentage distribution of the population in selected occupations scoring at each of the five literacy levels, by literacy scale and country: 1994

_		Pro	se scale	<i>;</i>			Docu	ment sc	ale		Quantitative scale					
Country and occupation	Total	Levell L	evel 2 L	evel 3 .e	evel 4/5	Total I	evell L	evel 2 L	evel 3 .e	evel 4/5	Total	Level I	Level 2 L	evel 3 .e	evel 4/5	
Canada																
Manager/professional	100.0	3.2	17.4	36.5	42.9	100.0	2.6	14.9	32.4	50.1	100.0	2.2	15.0	36.4	46.4	
Technician	100.0	4.3	26.4	26.3	43.0	100.0	3.5	12.1	58.6	25.9	100.0	3.9	17.7	33.4	45.0	
Clerk	100.0	6.0	27.8	51.2	15.1	100.0	8.2	26.8	36.7	28.3	100.0	4.9	34.6	40.7	19.7	
Sales/service	100.0	10.9	29.2	34.5	25.4	100.0	16.4	29.7	29.0	24.8	100.0	15.2	30.7	40.8	13.4	
Skilled crafts workers	100.0	29.7	23.1	33.4	13.8	100.0	24.7	30.5	28.8	16.1	100.0	22.2	34.5	29.3	13.9	
Machine operator/asseml	100.0	29.1	19.6	39.9	11.4	100.0	27.7	31.3	26.4	14.6	100.0	29.0	28.6	33.7	8.8	
Agriculture/primary	100.0	18.6	27.9	39.6	13.8	100.0	17.5	31.4	32.7	18.4	100.0	21.2	25.0	36.1	17.7	
Germany																
Manager/professional	100.0	4.5	19.1	44.4	32.0	100.0	1.5	20.0	36.4	42.1	100.0	1.9	14.1	37.3	46.7	
Technician	100.0	3.9	22.9	49.0	24.2	100.0	2.3	14.0	54.2	29.6	100.0	1.7	15.4	51.6	31.3	
Clerk	100.0	9.6	39.0	38.9	12.5	100.0	5.4	31.1	44.2	19.3	100.0	5.2	26.1	45.6	23.1	
Sales/service	100.0	10.4	36.9	36.3	16.5	100.0	5.5	37.3	39.3	17.9	100.0	5.0	25.2	44.5	25.3	
Skilled crafts workers	100.0	14.4	35.6	42.9	7.1	100.0	6.7	33.0	46.5	13.7	100.0	3.2	23.8	48.2	24.8	
Machine operator/asseml	100.0	21.6	52.8	20.0	5.7	100.0	11.7	48.3	32.1	7.8	100.0	11.2	40.6	36.0	12.3	
Agriculture/primary	100.0	36.8	31.3	28.0	3.9	100.0	19.0	39.1	28.7	13.2	100.0	17.6	27.2	38.5	16.7	
Netherlands																
Manager/professional	100.0	3.2	20.0	52.1	24.7	100.0	2.3	17.1	52.5	28.0	100.0	1.9	15.1	48.9	34.2	
Technician	100.0	2.7	19.6	54.4	23.3	100.0	2.6	15.1	49.6	32.7	100.0	2.9	17.4	50.7	29.0	
Clerk	100.0	6.0	24.2	53.2	16.5	100.0	5.0	20.3	55.1	19.5	100.0	4.5	26.7	51.9	16.8	
Sales/service	100.0	8.5	29.5	44.2	17.8	100.0	7.1	24.1	49.0	19.8	100.0	7.8	24.1	47.1	21.0	
Skilled crafts workers	100.0	10.4	44.6	37.8	7.1	100.0	9.1	36.2	39.1	15.6	100.0	10.1	31.9	44.4	13.6	
Machine operator/asseml	100.0	19.1	36.5	36.8	7.6	100.0	12.8	33.4	36.2	17.5	100.0	13.4	24.8	41.5	20.3	
Agriculture/primary	100.0	16.9	31.6	43.1	8.4	100.0	16.4	24.2	43.7	15.7	100.0	18.3	27.2	44.0	10.4	
Poland																
Manager/professional	100.0	13.1	31.2	40.9	14.8	100.0	19.2	28.4	33.9	18.4	100.0	11.5	26.3	37.5	24.7	
Technician	100.0	23.4	45.1	28.0	3.6	100.0	22.2	39.2	29.8	8.8	100.0	18.5	32.7	36.1	12.7	
Clerk	100.0	25.1	43.3	28.5	3.1	100.0	33.1	31.7	28.1	7.1	100.0	27.5	31.7	29.5	11.3	
Sales/service	100.0	30.5	43.4	22.0	4.2	100.0	34.3	32.9	25.8	6.9	100.0	28.2	36.8	28.1	6.8	
Skilled crafts workers	100.0	47.2	38.6	14.0	0.3	100.0	47.1	30.4	16.6	5.9	100.0	41.8	29.3	24.2	4.6	
Machine operator/asseml	100.0	48.7	35.0	15.7	0.5	100.0	57.7	27.3	12.7	2.3	100.0	42.7	31.0	19.8	6.5	
Agriculture/primary	100.0	62.9	27.8	8.5	0.7	100.0	60.5	29.3	8.9	1.3	100.0	54.3	28.5	15.2	2.0	

Table 21-2 Percentage distribution of the population in selected occupations scoring at each of the five literacy levels, by literacy scale and country: 1994 - Continued

_		P	rose sca	le			Doc	ument sc	cale			Quar	ntitative	scale	
Country and occupation	Total	Level I	Level 2	Level 3	evel 4/5	Total	Levell	Level 2	Level 3 -	evel 4/5	Total	Level I	Level 2	Level 3.	evel 4/5
Sweden															
Manager/professional	100.0	2.4	12.1	38.4	47.0	100.0	1.6	13.7	38.2	46.4	100.0		15.4	37.0	46.1
Technician	100.0	3.3	16.5	43.1	37.1	100.0	2.8	14.8	41.7	40.8	100.0	3.5	15.0	41.5	40.0
Clerk	100.0	3.4	18.5	43.2	35.0	100.0	2.2	15.8	41.1	40.9	100.0	3.9	14.7	42.1	39.4
Sales/service	100.0	6.6	22.4	38.8	32.1	100.0	5.9	21.5	41.3	31.3	100.0	7.3	21.4	39.8	31.5
Skilled crafts workers	100.0	10.0	26.4	42.5	21.1	100.0	8.4	17.3	44.5	29.8	100.0	6.4	19.5	44.0	30.0
Machine operator/asseml	100.0	7.7	27.5	41.4	23.4	100.0	7.3	19.3	45.3	28.1	100.0	7.9	16.1	42.0	34.0
Agriculture/primary	100.0	11.6	30.0	39.4	19.0	100.0	11.0	25.5	37.8	25.8	100.0	8.0	26.5	39.1	26.4
Switzerland (French)															
Manager/professional	100.0	7.0	17.3	53.3	22.4	100.0	5.4	15.9	49.0	29.7	100.0	4.0	10.8	44.8	40.5
Technician	100.0	8.4	29.5	48.5	13.5	100.0	6.9	30.4	47.9	14.8	100.0	3.7	18.7	57.6	20.0
Clerk	100.0	3.5	39.1	45.7	11.6	100.0	6.3	31.2	46.1	16.4	100.0	3.2	25.1	52.0	19.6
Sales/service	100.0	27.0	45.7	24.6	2.6	100.0	16.7	39.5	34.9	8.9	100.0	19.7	36.3	34.4	9.6
Skilled crafts workers	100.0	25.2	35.7	37.7	1.4	100.0	21.8	28.8	32.0	17.3	100.0	12.2	28.4	40.3	19.0
Machine operator/asseml	100.0	28.0	30.4	31.9	9.7	100.0	27.9	34.7	23.3	14.1	100.0	27.4	31.5	33.0	8.2
Agriculture/primary	100.0	24.8	48.2	24.2	2.8	100.0	19.6	45.1	28.5	6.7	100.0	18.6	39.0	36.7	5.7
Switzerland (German)															
Manager/professional	100.0	5.1	31.4	50.4	13.0	100.0	5.0	28.6	44.0	22.4	100.0	3.6	16.5	49.8	30.1
Technician	100.0	3.5	29.9	52.6	14.0	100.0	4.4	22.4	47.7	25.4	100.0	2.6	20.5	49.4	27.5
Clerk	100.0	6.3	38.0	40.4	15.3	100.0	7.1	32.0	42.4	18.5	100.0	8.5	26.4	45.4	19.7
Sales/service	100.0	15.9	44.3	34.7	5.0	100.0	20.1	38.1	36.0	5.8	100.0	12.1	38.8	38.2	10.9
Skilled crafts workers	100.0	24.8	46.5	26.2	2.4	100.0	22.0	36.8	32.7	8.5	100.0	11.5	36.5	39.5	12.5
Machine operator/asseml	100.0	40.1	35.9	24.0	0.0	100.0	30.6	27.3	31.0	11.1	100.0	27.9	24.5	39.6	8.1
Agriculture/primary	100.0	33.3	43.9	20.5	2.3	100.0	31.3	31.9	24.6	12.2	100.0	26.2	32.7	27.0	14.0
United States															
Manager/professional	100.0	3.9	15.6	37.0	43.4	100.0	5.1	14.9	41.0	39.1	100.0	3.7	14.1	36.6	45.6
Technician	100.0	2.4	16.3	47.3	34.0	100.0	4.2	17.0	48.7	30.1	100.0	2.3	10.8	44.4	42.5
Clerk	100.0	7.3	29.8	41.7	21.2	100.0	11.1	34.0	33.1	21.8	100.0	10.6	31.7	35.5	22.1
Sales/service	100.0	24.2	26.1	32.3	17.4	100.0	26.6	25.4	32.8	15.2	100.0	25.1	28.5	29.3	17.2
Skilled crafts workers	100.0	29.4	38.0	25.5	7.1	100.0	29.9	37.6	25.0	7.4	100.0	28.7	31.5	28.9	10.9
Machine operator/asseml	100.0	28.9	36.9	27.8	6.3	100.0	35.4	32.2	25.8	6.6	100.0	30.4	30.9	27.5	11.2
Agriculture/primary	100.0	31.7	21.2	24.5	22.7	100.0	36.4	12.2	27.3	24.1	100.0	33.6	9.5	42.5	14.4

NOTE: Details may not add to total due to rounding.

Table 21-3 Percentage distribution of the five literacy levels within selected income quintiles, by literacy scale and country: 1994

		Prose	scale			Docume	ent scale		(Quantita	tive scale	
Country and				Level				Level				Level
income quintile	Level I	Level 2	Level 3	4/5	Level 1	Level 2	Level 3	4/5	Level I	Level 2	Level 3	4/5
Canada												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	46.0	30.0	21.6	12.6	51.7	27.7	20.3	11.9	51.8	27.9	21.4	10.7
Quintile 1	13.8	16.3	17.8	15.3	12.1	17.6	16.5	17.2	13.8	16.9	19.6	11.5
Quintile 2	18.0	14.0	14.5	13.2	18.8	13.6	13.9	13.6	15.2	17.6	14.4	11.2
Quintile 3	11.2	11.9	14.9	15.9	7.4	15.1	17.8	11.9	11.5	15.4	10.5	18.7
Quintile 4	7.1	17.1	15.1	17.9	5.0	13.1	18.8	18.9	4.5	9.7	20.6	19.5
Quintile 5	3.9	10.7	16.2	25.1	5.0	12.8	12.7	26.5	3.2	12.5	13.4	28.3
Germany												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	34.0	34.3	33.2	31.5	42.2	34.6	33.5	27.7	39.6	37.4	32.8	28.6
Quintile 1	8.6	7.9	8.8	9.1	5.6	9.9	8.0	8.4	8.0	10.4	8.3	6.8
Quintile 2	24.3	16.7	14.2	9.5	25.8	17.5	13.6	13.3	21.3	17.9	15.0	13.4
Quintile 3	15.2	15.7	13.4	13.9	11.8	17.7	13.2	13.2	14.0	15.5	14.8	13.1
Quintile 4	10.2	15.6	15.0	12.3	10.6	12.0	16.4	14.7	10.7	10.4	15.6	16.8
Quintile 5	7.6	9.8	15.4	23.6	4.1	8.3	15.2	22.7	6.5	8.3	13.5	21.3
Netherlands												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	52.0	39.9	25.9	21.6	58.0	41.2	25.7	22.0	56.8	40.3	27.6	19.9
Quintile 1	7.6	8.6	11.8	13.0	8.2	8.4	12.2	10.9	11.3	9.1	11.4	10.3
Quintile 2	9.5	8.0	12.2	10.6	6.1	8.8	12.7	9.7	6.4	10.6	12.5	7.8
Quintile 3	19.5	19.5	20.9	22.8	20.1	20.2	20.5	21.8	17.6	20.3	21.3	21.1
Quintile 4	8.7	14.6	12.1	12.8	6.2	12.5	13.3	14.2	6.5	12.5	13.1	14.6
Quintile 5	2.7	9.3	17.1	19.3	1.4	8.8	15.6	21.5	1.4	7.3	14.1	26.4
Poland												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.8
Quintile 1	22.9	20.3	14.7	11.5	24.4	16.4	18.8	11.1	26.4	18.0	16.9	9.5
Quintile 2	22.0	17.5	16.2	10.1	20.0	20.1	15.8	13.1	20.4	20.0	18.2	9.3
Quintile 3	21.3	24.1	22.1	20.2	20.1	24.4	24.0	23.4	20.9	23.0	23.5	23.5
Quintile 4	14.4	21.2	22.3	26.3	16.7	22.7	17.1	22.4	14.2	22.5	19.4	24.1
Quintile 5	19.1	16.9	24.8	32.0	18.9	16.4	24.2	29.0	18.1	16.4	21.9	32.8

Table 21-3 Percentage distribution of the five literacy levels within selected income quintiles, by literacy scale and country: 1994 - Continued

	Prose scale Level					Docume	ent scale		(Quantita	tive scale	
Country and				Level				Level				Level
income quintile	Levell	Level 2	Level 3	4/5	Level 1	Level 2	Level 3	4/5	Level I	Level 2	Level 3	4/5
Sweden												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	1.8	0.6	0.2	0.1	3.5	0.0	0.3	0.2	3.3	0.0	0.4	0.1
Quintile 1	7.4	8.6	13.7	18.9	5.0	13.2	12.9	17.2	10.0	11.9	13.4	16.6
Quintile 2	21.8	15.3	12.6	9.9	26.3	18.7	11.8	9.2	26.1	17.3	12.7	8.9
Quintile 3	28.2	22.8	17.2	16.6	27.7	21.0	20.1	15.1	25.1	25.9	19.6	13.7
Quintile 4	21.4	28.5	24.2	17.4	24.4	27.2	23.7	18.7	27.3	24.7	24.5	18.6
Quintile 5	19.5	24.2	32.0	37.1	13.0	20.0	31.3	39.6	8.3	20.3	29.4	42.1
Switzeriand (Fre	encn)											
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	_	_	_	_	33.4	22.4	20.1	23.5	_	_	_	_
Quintile 1	26.3	26.3	19.7	20.9	28.8	21.1	19.2	13.9	34.2	24.5	20.2	22.5
Quintile 2	26.8	21.4	15.6	22.7	19.3	22.6	19.2	20.0	25.2	22.0	20.0	15.7
Quintile 3	23.0	19.3	21.2	17.7	13.5	21.3	21.8	22.2	26.4	24.9	21.2	11.6
Quintile 4	18.3	19.7	24.0	15.4	5.0	12.6	19.7	20.3	8.7	18.2	24.7	20.5
Quintile 5	5.5	13.3	19.5	23.3	_	_	_	_	5.5	10.5	14.0	29.7
Switzerland (Ge	erman)											
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	_	_	_	_	_	_	_	_	_	_	_	_
Quintile 1	34.9	25.2	23.4	30.2	33.2	26.6	23.8	26.7	34.1	28.6	25.4	22.4
Quintile 2	19.1	14.4	10.5	8.1	22.3	14.9	9.7	9.3	20.5	20.2	8.8	8.5
Quintile 3	20.7	26.3	18.6	19.5	22.0	20.9	22.3	22.4	26.5	21.5	22.1	19.6
Quintile 4	20.5	17.3	22.8	9.5	18.3	17.7	21.5	16.5	17.0	15.2	22.9	16.8
Quintile 5	4.8	16.8	24.6	32.7	4.1	20.0	22.7	25.1	1.8	14.4	20.7	32.7
United States												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No income	45.2	31.3	20.6	11.9	44.2	30.5	19.2	11.4	44.2	29.6	22.2	12.1
Quintile 1	26.1	22.0	19.7	16.3	25.9	20.2	21.5	14.6	27.6	22.6	21.2	12.4
Quintile 2	17.9	20.2	19.2	16.3	15.9	21.8	18.1	17.7	18.3	22.9	17.6	15.7
Quintile 3	8.0	15.5	21.3	21.6	10.4	16.3	19.6	22.9	8.5	16.3	19.9	22.6
Quintile 4	2.6	8.0	15.1	21.8	2.9	9.0	15.9	21.7	1.2	6.9	14.1	25.4
Quintile 5	0.3	3.0	4.1	12.1	0.7	2.0	5.7	11.8	0.3	1.7	5.0	11.9

NOTE: Details do not add to totals due to rounding.

Table 21-4 Percentage distribution of the population with selected educational attainment levels scoring at each of the five literacy levels, by literacy scale and country: 1994

Country and level		Pro	ose scale	9			Docu	ment sc	ale		Quantitative scale					
of educational attainment	Total l	_evel 1 l	evel 2 l	Level 3 e	vel 4/5	Total I	Level 1 l	evel 2 L	evel 3 e	vel 4/5	Total L	evel 1 L	evel 2 L	evel 3 ev	vel 4/5	
Canada																
Preprimary/primary	100.0	67.5	22.1	9.9	0.5	100.0	73.6	15.4	9.7	1.3	100.0	69.4	18.5	11.3	8.0	
Lower secondary	100.0	22.2	36.8	33.0	8.1	100.0	23.2	40.2	26.3	10.3	100.0	23.1	41.5	27.6	7.8	
Upper secondary	100.0	10.0	29.3	41.2	19.5	100.0	10.5	28.4	36.9	24.1	100.0	8.8	31.7	42.8	16.6	
Higher education (non-uni\	100.0	4.4	20.9	46.9	27.7	100.0	4.2	17.6	39.1	39.1	100.0	4.2	20.7	48.6	26.4	
Higher education (university	100.0	0.2	10.8	29.8	59.1	100.0	3.3	10.1	38.5	48.1	100.0	2.2	4.4	29.4	64.0	
Germany																
Preprimary/primary	100.0	67.7	14.5	17.8	0.0	100.0	55.5	30.2	14.3	0.0	100.0	42.5	20.8	29.2	7.5	
Lower secondary	100.0	17.5	38.6	36.0	7.9	100.0	10.5	38.3	39.2	12.0	100.0	7.6	31.0	44.1	17.2	
Upper secondary	100.0	7.9	33.6	44.5	14.0	100.0	4.7	26.7	43.5	25.1	100.0	4.1	21.0	49.3	25.7	
Higher education (non-univ	100.0	4.1	14.0	49.2	32.6	100.0	4.7	20.2	48.3	26.8	100.0	2.7	11.1	59.4	26.9	
Higher education (university	100.0	4.0	17.0	39.4	39.6	100.0	1.1	17.9	34.8	46.2	100.0	2.0	13.2	28.6	56.2	
Netherlands																
Preprimary/primary	100.0	37.8	42.1	17.2	3.0	100.0	36.0	38.7	19.2	6.2	100.0	35.5	35.5	23.7	5.3	
Lower secondary	100.0	11.9	44.8	38.3	4.9	100.0	11.2	36.9	43.1	8.8	100.0	11.9	35.5	41.7	10.9	
Upper secondary	100.0	2.7	23.3	55.2	18.8	100.0	2.9	18.2	52.4	26.5	100.0	2.7	22.1	52.0	23.2	
Higher education (non-univ	100.0	_	_	_	_	100.0	_	_	_	_	100.0	_	_	_	_	
Higher education (university	100.0	1.3	11.9	52.3	34.5	100.0	1.3	13.8	50.0	34.9	100.0	1.7	9.7	49.4	39.3	
Poland																
Preprimary/primary	100.0	75.2	19.0	5.7	0.2	100.0	74.6	18.8	5.2	1.4	100.0	69.4	21.3	7.9	1.3	
Lower secondary	100.0	42.5	39.7	15.9	1.8	100.0	46.9	33.9	15.2	4.0	100.0	39.4	34.3	22.1	4.1	
Upper secondary	100.0	24.9	44.4	28.5	2.3	100.0	27.8	38.3	27.2	6.8	100.0	20.9	36.2	32.9	10.1	
Higher education (non-univ	100.0	11.8	38.8	40.7	8.6	100.0	16.4	35.5	36.1	12.1	100.0	15.5	25.7	47.7	11.1	
Higher education (university	100.0	11.2	30.4	42.0	16.4	100.0	15.6	29.6	32.8	22.0	100.0	9.1	25.9	38.6	26.5	
Sweden																
Preprimary/primary	100.0	25.2	42.5	24.7	7.6	100.0	22.5	38.1	33.2	6.2	100.0	21.7	32.0	35.3	11.1	
Lower secondary	100.0	7.0	20.7	47.3	25.0	100.0	6.8	16.9	45.5	30.8	100.0	7.1	21.0	40.8	31.1	
Upper secondary	100.0	5.7	20.5	42.7	31.1	100.0	3.9	19.1	42.1	34.9	100.0	4.8	18.5	41.9	34.8	
Higher education (non-univ	100.0	1.4	9.4	43.4	45.8	100.0	1.1	11.1	37.8	50.1	100.0	0.6	14.6	38.5	46.3	
Higher education (university	100.0	0.7	6.3	32.2	60.7	100.0	0.7	8.1	29.8	61.4	100.0	1.0	5.9	29.3	63.7	

Table 21-4 Percentage distribution of the population with selected educational attainment levels scoring at each of the five literacy levels, by literacy scale and country: 1994 - Continued

Country and level		Pro	se scale	;			Docu	ment sc	ale			Quant	itative so	cale	
of educational attainment	Total L	evel 1 l	evel 2 L	evel 3 e	vel 4/5	Total L	evel 1 L	evel 2 L	Level 3 e	vel 4/5	Total L	evel 1 I	evel 2 L	evel 3 e	vel 4/5
Switzerland (French)															
Preprimary/primary	100.0	48.8	34.7	14.9	1.6	100.0	41.9	39.7	16.4	2.0	100.0	40.2	37.1	22.4	0.3
Lower secondary	100.0	28.9	51.5	19.6	0.0	100.0	31.1	46.9	19.9	2.1	100.0	22.6	44.0	29.5	4.0
Upper secondary	100.0	11.1	36.4	43.5	9.1	100.0	9.0	31.1	45.1	14.8	100.0	5.6	24.2	48.2	22.0
Higher education (non-univ	100.0	7.0	25.6	56.8	10.7	100.0	2.0	19.5	47.9	30.6	100.0	3.2	13.8	51.8	31.2
Higher education (university	100.0	4.8	13.4	49.4	32.4	100.0	4.9	7.1	47.9	40.1	100.0	4.2	9.1	45.4	41.4
Switzerland (German)															
Preprimary/primary	100.0	65.8	28.8	5.4	0.0	100.0	72.6	16.7	10.6	0.0	100.0	51.0	26.3	19.7	3.0
Lower secondary	100.0	34.2	42.9	18.7	4.2	100.0	31.6	40.2	17.9	10.3	100.0	22.0	44.0	21.3	12.7
Upper secondary	100.0	11.0	39.8	39.4	9.8	100.0	9.7	30.9	42.9	16.5	100.0	6.9	27.2	46.7	19.2
Higher education (non-univ	100.0	6.8	30.1	54.1	9.0	100.0	5.1	24.9	49.1	20.9	100.0	3.7	14.3	54.2	27.9
Higher education (university	100.0	6.7	21.1	46.7	25.5	100.0	6.8	15.7	39.1	38.4	100.0	6.8	18.3	36.0	38.9
United States															
Preprimary/primary	100.0	69.3	19.9	8.9	1.8	100.0	74.0	18.8	6.3	1.0	100.0	66.8	23.2	9.1	0.8
Lower secondary	100.0	44.7	30.1	22.3	2.8	100.0	45.2	27.9	21.1	5.9	100.0	44.7	22.8	28.0	4.5
Upper secondary	100.0	16.9	33.7	35.4	13.9	100.0	21.2	33.7	32.5	12.6	100.0	18.4	34.2	33.0	14.5
Higher education (non-univ	100.0	9.5	24.8	39.9	25.8	100.0	11.7	25.0	39.4	24.0	100.0	8.8	23.1	41.3	26.8
Higher education (university	100.0	4.9	11.9	35.7	47.5	100.0	6.7	13.3	38.9	41.1	100.0	4.9	11.3	32.1	51.8

NOTE: Details may not add to total due to rounding.